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BULLETIN
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TORREY BOTANICAL CLUB

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Desmids from Newfoundland

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(WITH PLATE 26)

The material here reported upon was collected at Rose au Rue, Newfoundland, September 10 and 11, 1903, by Dr. Glover M. Allen. It consisted of but two bottles of material, one containing sphagnum from a pond on an alpine hilltop, the other containing portions of leaves of water-plants with a little of the sediment washed from them. From the lateness of the season and the small amount of material the twenty species represented a fair number for such circumstances. Certain species were especially abundant, *Tetmemorus*, *Cylindrocystis*, *Mesotaenium* and *Cosmarium* being the genera most frequently met with. These are, I believe, the first desmids that have ever been reported from any part of the island. The following were found :

DESMIDIUM BAILEYI (Ralfs) De By.

Diameter of filament, 25 μ .

But one filament of this species was found, but that was of the typical American form figured by Nordstedt (K. Sv. Vet.-Akad. Handl. 22⁸: pl. 2. f. 4. 1888). Wille seems, as Nordstedt says, to have been wrong when he says that this species has a twisted filament and that "the lateral margins are straight, not bicrenate." In all the specimens I have seen, the crenae of the margin have always been apparent and I have not yet seen a twisted filament. The figure referred to above seems to be typical of the American form of this species.

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MESOTAENIUM ENDLICHERIANUM Naeg.

Long. $35\ \mu$; lat. $12\ \mu$.

Very common in the second bottle of material mentioned above.

CYLINDROCYSTIS AMERICANA W. & G. S. West. (PLATE 26, FIG. 1.)

Long. $40\ \mu$; lat. $18\ \mu$.

Although this is slightly smaller than the typical form, it has the same proportions and the same characteristic shape. Frequent in the first collection.

CYLINDROCYSTIS sp. ?

Long. $37.4\ \mu$; lat. $24.8\ \mu$; lat. apic. $15\ \mu$.

Very finely but sparsely punctate, slightly constricted in the middle. But one specimen of this character noted.

PENIUM DIGITUS (Ehrenb.) Bréb.

Long. $160\text{--}180\ \mu$; lat. $63\text{--}71\ \mu$.

Varying somewhat in size and form, fairly common.

PENIUM CLOSTERIOIDES Ralfs.

Long. $98\ \mu$; lat. $29\ \mu$.

Few of this species noticed.

TETMEMORUS BREBISSEI TURGIDUS Ralfs. (PLATE 26, FIG. 2.)

Long. $174\text{--}198\ \mu$; lat. $40\text{--}44\ \mu$.

Very common among the moss in the first collection.

TETMEMORUS LAEVIS (Kütz.) Ralfs. (PLATE 26, FIG. 3.)

Long. $133\ \mu$; lat. $25\ \mu$.

Not as common as the other two species of this genus.

TETMEMORUS MINUTUS De By. (PLATE 26, FIG. 4.)

Long. $62\text{--}65\ \mu$; lat. $15\text{--}16\ \mu$.

The commonest species in the collection.

EUASTRUM AMPULLACEUM Ralfs. (PLATE 26, FIG. 5.)

Long. $87\ \mu$; lat. $47\ \mu$; lat. lob. pol. $22\ \mu$.

Somewhat smaller than the form usually found; frequent.

Euastrum Allenii sp. nov. (PLATE 26, FIG. 6.)

Long. $105\ \mu$; lat. $49\ \mu$; lat. lob. pol. $33\ \mu$; lat. isthm. $18\ \mu$.

E. submagnum, circiter duplo longius quam latum, modice constrictum, sinu lineare: semicellulae septemlobae, lobis lateralibus

retusis, lobis polaribus truncatis : supra isthmum tumore instructae : membrana sparse scrobiculato-punctata.

This species is very distinct. The peculiar rectangular form and its multilobate character will at once distinguish it. It is named for Dr. Glover M. Allen, who collected it.

EUASTRUM BINALE Ralfs.

Long. $18\ \mu$; lat. $15\ \mu$.

Not at all frequent : in second collection.

EUASTRUM ELEGANS (Bréb.) Kütz., var.

Long. $25\ \mu$; lat. $15\ \mu$; lat. isthm. $4\ \mu$.

In the second collection, rare.

XANTHIDIUM ARMATUM Bréb. (PLATE 26, FIG. 7.)

Long. s. spin. $148\ \mu$; lat. s. spin. $93\ \mu$; lat. c. spin. $115\ \mu$; lat. isthm. $45\ \mu$.

Central series of four granules : several specimens found in the first collection. Considerable variation was seen in the two semi-cells of the same specimen. The form figured was the most common.

Micrasterias conferta *Novae-terrae* var. nov. (PLATE 26, FIG. 8.)

Long. $102\ \mu$; lat. $93\ \mu$; lat. isthm. $12\ \mu$; lat. lob. pol. c. sp. $37\ \mu$.

This in some of its characters is like the var. *hamata* of Wolle, but the polar lobe is less widely separated from the lateral ones, the polar lobe not so wide at the apex and distinctly spinose. The edges of the lateral lobes adjacent to the polar lobe have a median angle, but not greatly developed. The constrictions are more open and the ultimate portions not so elongated as in the var. *hamata*.

COSMARIUM IMPRESSULUM MINOR Turner. (PLATE 26, FIG. 9.)

Long. $16\ \mu$; lat. $12\ \mu$; isthm. $3.5\ \mu$.

This form is common in the two collections. It seems to be exactly like the forma *minor* of Turner in shape and measurements.

COSMARIUM PSEUDOPYRAMIDATUM Lund.

Long. $50-56\ \mu$; lat. $31-33\ \mu$; lat. isthm. $9-10\ \mu$.

Very common in the collections, varying slightly in size.

STAURASTRUM DUBIUM West.

Long. $28\ \mu$. lat. $22\ \mu$; lat. isthm. $10\ \mu$.

Very common.

STAURASTRUM NANUM Wolle. (PLATE 26, FIG. 10.)

Long. $25\ \mu$; lat. c. acul. $31\ \mu$; lat. s. acul. $22\ \mu$; lat. isthm. $8\ \mu$.

Common in the first collection.

STAURASTRUM CRENULATUM (Naeg.) Delp.

Lat. c. proc. $37\ \mu$.

A single empty cell found.

BOSTON SOCIETY OF NATURAL HISTORY.

Explanation of plate 26

FIG. 1. *Cylindrocystis americana* W. & G. S. West. $\times 600$.

FIG. 2. *Tetmemorus Brebissonii turgidus* Ralfs. $\times 600$.

FIG. 3. *T. laevis* (Kütz.) Ralfs. $\times 600$.

FIG. 4. *T. minutus* De By. $\times 600$.

FIG. 5. *Euastrum ampullaceum* Ralfs. $\times 600$.

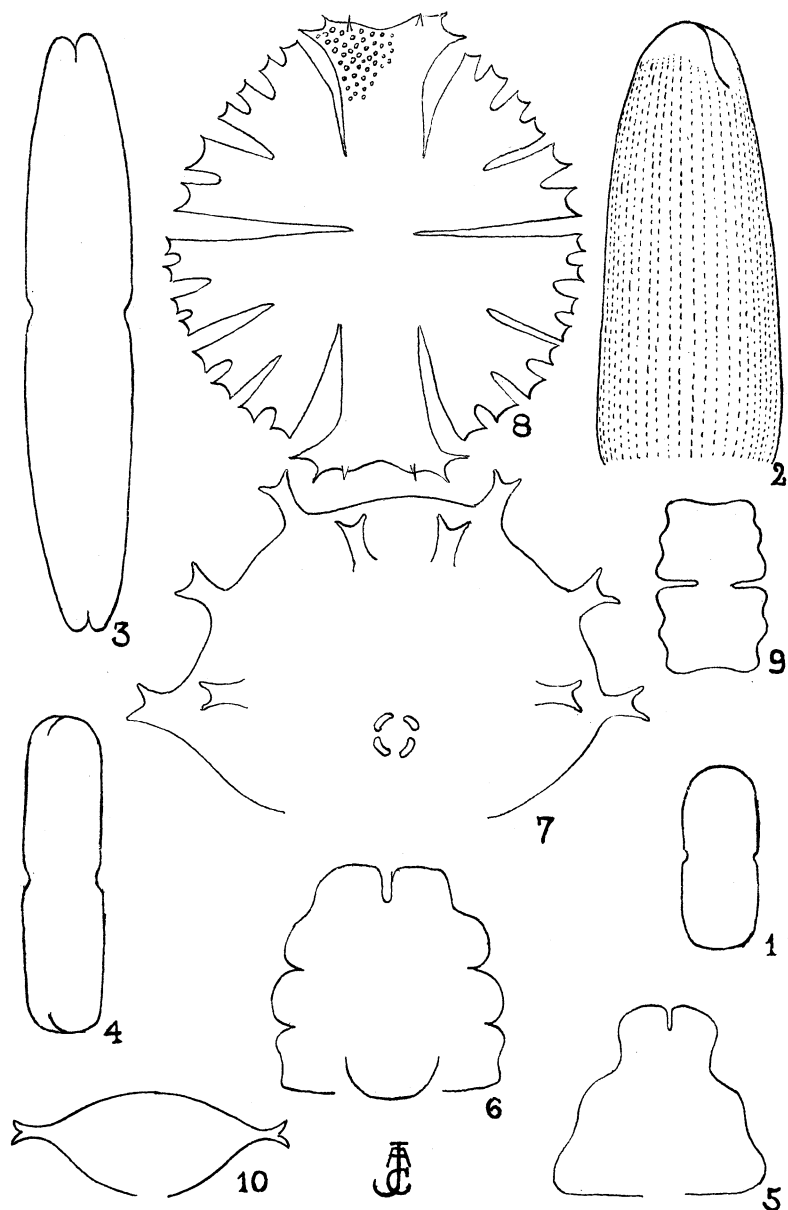
FIG. 6. *E. Allenii* sp. nov. $\times 600$.

FIG. 7. *Xanthidium armatum* Bréb. $\times 600$.

FIG. 8. *Micrasterias conferta Novae-terrae* var. nov. $\times 600$.

FIG. 9. *Cosmarium impressulum minor* Turner. $\times 1200$.

FIG. 10. *Staurastrum nanum* Wolle. $\times 1200$.



DESMIDS FROM NEWFOUNDLAND